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EXAMINER

DALEY, CHRISTOPHER ANTHONY

ART UNIT PAPER NUMBER

2111

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/616,764

Applicant(s)

MAUERSBERGER ET AL.

Examiner

Christopher A. Daley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 7-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 7-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Claims 1,2,7 – 12 are pending.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1,2,7-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al (US6820158) hereinafter Lee.

4. As to claim 1, Lee discloses A device for data communication between a first host device or a further host device and at least one client device on a shared transmission path having: a first host device, which includes a host application (Figure 1 illustrates a system 100 comprising a plurality of processors 102 – 108, coupled in a ring configuration to system address chip 130, and system data chip 140 via bus 110 and 114. Said system data chip 140, comprises the application to manage the system the system data flow, COL. 4, lines 1 – 20, COL. 4, line 53 – COL. 6, line 5); at least one further host device, which includes a host application (Figure 1 illustrates a second host device system address chip 130, which manages the system address scheme, COL. 4, lines 15 – 20);

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at least one client device, which includes a client application (Figure 1 illustrates a plurality of client devices such as MAC, 156, and MDC 158, COL. 4, lines 5 – 10); wherein the host devices each have a master application interface module which is linked in the transmission path :the host devices each have a master application module which connects the particular host application to the assigned master application interface module (Figure 5A illustrates the details of said interface module, COL. 6, lines 26 – 31);

each client device has a client application interface module. which is linked in the transmission path and is connected to the assigned client application:

a bus control module is provided (Figure 5A illustrates the details of said interface module, COL. 6, lines 26 – 31);

the transmission path is implemented as a data bus representing a ring connector (Figure 4B illustrates an embodiment of the associated devices coupled together in a ring configuration COL. 5, lines 40 – 56);

the respective master application interface module of each host device and the respective client application interface module of each client device, as well as the bus control module are connected to one another by the data bus for exchanging data and/or signals with one another and the bus control module being implemented to control the access of the host devices to the data bus ((Figure 5A illustrates the details of both master and client interfaces showing the interface logic 510, and the control logic 520, COL. 6, lines 26 – 42) .

5. As to claim 7, Lee discloses a method of data communication between a first host device or a further host device and at least one client device on a shared transmission path implemented as a data bus representing a ring connection, having the following steps:

opening a communication connection between a host application running on the host device and a client application running on the client device (Figure 8 illustrates the opening of the host device to a client device via the control logic 700, COL. 9, lines 33 – 50);

transmitting arbitration information on the data bus along the opened communication connection, the arbitration information containing data, on the basis of which the data bus is reserved for a predetermined time interval or for a predetermined data volume for a subsequent data transmission on the data bus along the opened communication connection (Figure 4B illustrates the topology of the coupling of the host devices, client devices, and arbiter. Arbiter ARB of said figure using the interface module as shown in Figure 8, COL. 5, lines 40 – 56);

transmitting data and/or signals between the host application and the client application and/or between the client application in and the host application on the data bus along the opened communication connection (Figure 7 illustrates the data transmission , COL 9, lines 35 – 50).

6. As to claim 8, Lee discloses the method, wherein the arbitration information is transmitted as an arbitration block, an arbitration block having arbitration data which

includes information about the length of the predetermined time interval or about the extent of the predetermined data volume for the subsequent data transmission (It is well known in the art that the arbitration scheme provides said features).

7. As to claim 9, Lee discloses the method, wherein the arbitration block has activity data, which includes information about the current state of the transmission path, from which it may be concluded whether the transmission path is currently being used for data transmission (It is well known in the art that the arbitration scheme provides said features).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee as applied to claim 1 above, and further in view of King et al (Intel iAPX 432, Final Project, April 15, 1999), hereinafter King.

10. As to claim 2, Lee does not explicitly disclose the device, wherein the host applications of the first and /or the further host devices have a processor.

However, King teaches of a device, iAPX 432 comprising a processor used in a system for patient monitoring. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the system address chip of King in the system of Lee as it offers a flexibility of a multi-processor system, page 3, paragraph 004. One of ordinary skill in the art would have been motivated to use the chip of King in the system of Lee as it provides a multi-processor device, which is flexible, page 3, paragraph 004.

Claims 10 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of King, and in further view of Jhang et al (US6253292), hereinafter Jhang.

11. As to claim 10, Lee as modified by King do not explicitly disclose the method, wherein in the event of an access wish of a host application to the transmission path, the master application interface module assigned to the host application, accepts following steps are performed:

the arbitration block present on the transmission path, reads out the activity data, checks, on the basis of the activity data, whether the transmission path is currently free for data transmission, writes, if the transmission path is free, activity data in the arbitration block which indicates use of the transmission path by the host application, and transfers the arbitration block to the bus control module via the transmission path; upon which the bus control module reserves the transmission path for the access by the host application.

However, Jhang teaches the arbitration block present on the transmission path, reads out the activity data, checks, on the basis of the activity data, whether the transmission path is currently free for data transmission, writes, if the transmission path is free, activity data in the arbitration block which indicates use of the transmission path by the host application, and transfers the arbitration block to the bus control module via the transmission path (Figure 4B illustrates a system comprising of an arbiter, node controller 416 coupled to host 412, and transmission path that couples arbiter to the ring interface via interface 418);

upon which the bus control module reserves the transmission path for the access by the host application (Said node controller 416 also comprises the module that enable the transmission of data from host 412 to the ring interface , COL. 4, lines 54 – 65). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the controller of Jhang in the system of Lee/King to manage the ring flow of a multi-processor system in a ring bus architecture as its snooping scheme allows for efficient use of this bus structure, COL. 3, lines 15 – 23. One of ordinary skill in the art would have been motivated to use the controller of Jhang in the system of Lee/King to manage the ring flow of a multi-processor system in a ring bus architecture as its snooping scheme allows for efficient use of this bus structure, COL. 3, lines 15 – 23.

12. As to claim 11, Jhang discloses the method, wherein after termination of a data transmission, the activity data in the arbitration block is reset by the master application



interface module and the transmission path, is thus released again (Node controller 416 manages the requests for the ring interface from the plurality of processors, and releases the transmission path to other processors after the transmission is completed, Col. 4, lines 37 – 45).

13. As to claim 12, Lee discloses a method of data communication in a device for data communication between a first host device or a further host device and at least one client device on a shared transmission path implemented as a data bus representing a ring connection, comprising:

opening a communication connection between a host application running on the host device and a client application running on the client device (Figure 8 illustrates the opening of the host device to a client device via the control logic 700, COL. 9, lines 33 – 50);

transmitting arbitration information on the data bus along the opened communication connection, the arbitration information containing data, on the basis of which the data bus is reserved for a predetermined time interval or for a predetermined data volume for a subsequent data transmission on the data bus along the opened communication connection (Figure 4B illustrates the topology of the coupling of the host devices, client devices, and arbiter. Arbiter ARB of said figure using the interface module as shown in Figure 8, COL. 5, lines 40 – 56);

transmitting data and/or signals between the host application and the client

application and/or between the client application in and the host application on the data bus along the opened communication connection (Figure 7 illustrates the data transmission , COL 9, lines 35 – 50).

Jhang teaches wherein in the event of an access wish of a host application to the transmission path, the following steps are performed:

the master application interface module assigned to the host application accepts the arbitration block present on the transmission path, reads out activity data from the arbitration block, checks, on the basis of the activity data, whether the transmission path is currently free for data transmission, writes, if the transmission path is free, activity data in the arbitration block which indicates use of the transmission path b# the host application, and transfers the arbitration block to the bus control module via the transmission path (Figure 4B illustrates a system comprising of an arbiter, node controller 416 coupled to host 412, and transmission path that couples arbiter to the ring interface via interface 418); upon which the bus control module reserves the transmission path for the access by the host application (Said node controller 416 also comprises the module that enable the transmission of data from host 412 to the ring interface , COL. 4, lines 54 – 65).

### ***Conclusion***

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Daley whose telephone number is 571 272 3625. The examiner can normally be reached on 9 am. - 4p m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571 272 3632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

8/11/2006



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